



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,116	04/16/2004	Yoji Seto	023971-0403	7718
22428 7590 12/04/2009 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007				
EXAMINER				
JEN, MINGJEN				
ART UNIT		PAPER NUMBER		
3664				
MAIL DATE		DELIVERY MODE		
12/04/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/825,116

**Applicant(s)**

SETO, YOJI

**Examiner**

IAN JEN

**Art Unit**

3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 September 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,7-9,19,20 and 24 is/are pending in the application.  
4a) Of the above claim(s) 4-6,10-18 and 21-23 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2,7-9,20 and 24 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/16/2006;04/16/2004  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

#### ***Response to Amendment***

1. This office action is response to the amendment entered on September 17<sup>th</sup>, 2009
2. Claims 1,9,13,14,19 and 20 have been amended.
3. Claim 24 has been newly added.
4. Claim 3 has been cancelled.

#### ***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the variation rate estimating section; vehicular traveling control modifying section must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

6. The amendment filed on September 19<sup>th</sup>, 2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

As for claim 1, the phrase, a variation rate estimating section shown on lines 13; a vehicular traveling modifying section shown on lines 15, has not been shown in the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

### *Claim Rejections - 35 USC § 112*

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described

in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As for claim 1, the phrase, “a variation rate estimating section”, “a vehicular traveling modifying section” does not provided in such full, concise and exact terms as shall concluded in the written description of the specification regards applicant's application. Appropriate correction is required.

**9. The following is a quotation of the second paragraph of 35 U.S.C. 112:**

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**10. Claim 1, 19 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

As for claim 1, the phrase, “a variation rate estimating section”, “a vehicular traveling modifying section” does not particularly pointing out the distinctly claimed subject matter that shall concluded in the specification regards applicant's application and claim subject matter. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

**11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**12.** Claim 1,2,7,9, 19, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Arita et al ( JP 11142520 in view of English translation).

As for claim 1, 19, 20, Arita et al shows a vehicular forward substance detecting section and method that detects a forward substance located in a forward direction of the vehicle ( Para 0009, 0010,0028,0035,0039,0045,0065-0067; Fig 2 ); a vehicular travel controlling section that performs a vehicular travel control on the basis of a relative positional relationship between the forward substance detected by the vehicular forward substance detecting section and the vehicle ( Para 0009, 0010,0028,0035,0039,0045,0065-0067; Fig 2 ); an impulse detecting section that detects such an impulse that a detection range of the vehicular forward substance detecting section is varied has been applied to the vehicular forward substance detecting section ( Para 0009, 0010,0028,0035,0039,0045,0065-0067; Fig 2 ); a variation rate estimating section that estimates a variation rate of the detection range of the vehicular forward substance detecting section when the impulse detecting section detects that the impulse has been applied to the vehicular forward substance detecting section ( Para 0024, 0025; Para 0032—0039; Para 0056-0068 ); a vehicular traveling control modifying section that modifies a control method of the vehicular travel controlling section in accordance with the variation rate estimated by the variation rate estimating section ( Par 0056 – 0068; Para 0071 - 0075).

As for claim 2, Arita et al shows a detection range variation informing section that informs a vehicular occupant of the variation in the detection range of the vehicular forward

substance detecting section when the impulse detecting section detects that the impulse has occurred ( Para 0017, Para 0021, Par 0026, Para 0059-0064 ).

As for claim 7, Arita et al shows the impulse detecting section detects the impulse on the basis of the relative positional relationship (Para 0024, 0025; Para 0032—0039; Para 0056-0068 ).

*Claim Rejections - 35 USC § 103*

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arita et al ( JP 11142520 in view of English translation) in view of Bai et al ( US Pat Pub 2003/0201878 ) and further in view of Maruko et al ( US Pat Pub No 2002/0091479 ) and Kodaka et al ( US Pat Pub No 2001/0016798 ).

As for claim 8, Arita et al is silent regarding recite claim limitation.

Maruko et al shows show a collision avoidance determining section that determines whether it is possible to avoid a collision of the vehicle against the forward substance by a vehicular brake system and braking characteristic of vehicle, a steering characteristic ( Para

0031- 0038 ). Kodaka et al shows wheather it is possible to avoid the collision of the vehicle against the forward substance by a driver's vehicular steering on the basis of the relative positional relationship to the forward substance detected by the vehicular forward substance detecting section ( Para 0044 - 0050 ) and wherein both Maruko et al show both the possible and impossible avoidance determination in Step 109; Kodaka shows both the possible and impossible avoidance determination in Fig 6, Fig 12 and 19.

It would have been obvious for one of ordinary skill in the art, to provide the possible avoidance means, as taught by Markuo and Kodaka, to the detecting means of Arita et al, in order to provide collision avoidance as taught among Arita, Markuo and Kodaka.

As for claim 9, Arita et al shows the vehicular traveling control modifying section performs the a vehicular traveling control only for a smaller relative positional relationship to the forward substance as the variation rate of the detection range estimated by the variation rate estimating section becomes large or from large to small ( Para 0012-0017; Para 0031- 0039 ).

**15.** Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arita et al ( JP 11142520 in view of English translation) in view of Bai et al ( US Pat Pub 2003/0201878 ).

As for claim 24, Arita is silent regarding means for determining whether or not automatic braking is currently being performed, wherein the vehicular travel controlling section inhibits braking control when automatic braking is currently not being performed and wherein automatic braking is being performed, the vehicular travel controlling section determines wheather or not



braking avoidance or steering avoidance by a vehicle operator is possible to avoid a collision, and if so, the automatic braking is released.

Bai et al shows means for determining whether or not automatic braking is currently being performed ( Para 0060, vehicle motion status detector 25 ), the vehicular travel controlling section inhibits braking control when automatic braking is currently not being performed and wherein automatic braking is being performed, the vehicular travel controlling section determines wheather or not braking avoidance or steering avoidance by a vehicle operator is possible to avoid a collision, and if so, the automatic braking is released ( Para 0092,0093; See also Fig 6A, S65 implementation of brake deceleration determination for possible collision determination ).

It would have been obvious for one of ordinary skill in the art to provide a traveling control section along wit automatically braking, as taught by Bai et al, to Arita et al, in order to provide a practical implementation of the radar/sensor system as both taught by Arita and Bai et al.

### ***Response to Arguments***

16. Applicant newly recited claim limitation along with remark has been further considered and reviewed. Applicant newly amended claim limitation with respect to claims 1 and 20 has been further addressed as section 12 above in view of newly recited reference, Arita et al ( JP 11142520 in view of English translation). Applicant newly added claim 20 has been also been addressed in view of newly provided reference, Arita et al ( JP 11142520 in view of English translation) in view of Bai et al ( US Pat Pub 2003/0201878 ).

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

Yano et al (US Pat Pub 20070129891).

Knoop et al (US Pat No 7015805).

Condo et al (US Pat Pub 20070032914).

Isaji et al (US Pat Pub 20050128063).

Seto et al (US pat Pub 20040145238/20020152015).

Seto et al (US Pat Pub 20030067219/20030028311/7099764).

Yamamura et al (US Pat pub 20020169538).

Akabori et al (US Pat Pub 2002011173/20020099491).

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN JEN whose telephone number is (571)270-3274. The examiner can normally be reached on Monday - Friday 9:00-6:00 (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ian Jen/  
Examiner, Art Unit 3664  
/KHOI TRAN/  
Supervisory Patent Examiner, Art Unit 3664